AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. – 82. (Canceled)

83. (New) A method of treating adult T-cell leukemia, the method comprising administering to a human in need thereof an effective amount of an antibody that immunospecifically binds to human CD2.

84. (New) The method of claim 83, wherein the antibody is siplizumab or an antigen-binding fragment thereof.

85. (New) A method of treating adult T-cell leukemia, the method consisting essentially of administering to a human in need thereof an effective amount of siplizumab or an antigen-binding fragment thereof.

86. (New) A method of treating adult T-cell leukemia, the method consisting essentially of administering to a human in need thereof an effective amount of an antibody that immunospecifically binds to human CD2 with the proviso that the antibody is not siplizumab or an antigen-binding fragment thereof.

87. (New) A method of treating adult T-cell leukemia, the method consisting essentially of administering to a human in need thereof an effective amount of siplizumab or an antigen-binding fragment thereof and a therapy, wherein the therapy is chemotherapy, immunotherapy, psoralen and ultraviolet A (PUVA) therapy, radiation therapy, a retinoid, an anti-retroviral agent, or any combination thereof.

88. (New) A method of treating adult T-cell leukemia, the method consisting essentially of administering to a human in need thereof an effective amount of an antibody that immunospecifically binds to human CD2 with the proviso that the antibody is not siplizumab or an antigen-binding fragment thereof and a therapy, wherein the therapy is chemotherapy, immunotherapy, psoralen and ultraviolet A (PUVA) therapy, radiation therapy, a retinoid, an anti-retroviral agent, or any combination thereof.

89. (New) The method of claim 83, 84, 85, 86, 87 or 88, wherein the adult T-cell leukemia is refractory or non-responsive to chemotherapy.

90. (New) The method of claim 83, 86 or 88, wherein the antibody competes with siplizumab for binding to human CD2.

91. (New) The method of claim 90, wherein the antibody binds to an epitope comprising amino acid residue 18, 55 or 59 of human CD2.

92. (New) The method of claim 87, wherein the therapy is chemotherapy.

93. (New) The method of claim 88, wherein the therapy is chemotherapy.

94. (New) The method of claim 92, wherein the chemotherapy is aggressive combination chemotherapy.

95. (New) The method of claim 93, wherein the chemotherapy is aggressive combination chemotherapy.

96. (New) The method of claim 92, wherein the chemotherapy comprises doxorubicin, epirubicin, cyclophosphamide, 5-fluorouracil, docetaxel, paclitaxel, leucovorin, levamisole, irinotecan, estramustine, etoposide, vinblastine, dacarbazine, carmustine, lomustine, a vinca alkaloid, cisplatin, mitomycin, vinorelbine, gemcitabine, carboplatin, hexamethylmelamine or topotecan.

97. (New) The method of claim 93, wherein the chemotherapy comprises doxorubicin, epirubicin, cyclophosphamide, 5-fluorouracil, docetaxel, paclitaxel, leucovorin, levamisole, irinotecan, estramustine, etoposide, vinblastine, dacarbazine, carmustine, lomustine, a vinca alkaloid, cisplatin, mitomycin, vinorelbine, gemcitabine, carboplatin, hexamethylmelamine or topotecan.

98. (New) The method of claim 87 or 88, wherein the immunotherapy is an anti-interleukin-2 receptor alpha monoclonal antibody.

99. (New) The method of claim 87 or 88, wherein the immunotherapy is RITUXAN™, ZEVALIN™, LYMPHOCIDE™ or LYMPHOCIDE™ Y-90.

100. (New) The method of claim 84, 85 or 87, wherein siplizumab or an antigen-binding fragment thereof is conjugated to a therapeutic moiety.

101. (New) The method of claim 83, 86 or 88, wherein the antibody is conjugated to a therapeutic moiety.

102. (New) The method of claim 100, wherein the therapeutic moiety is cytotoxic agent or radioactive element.

103. (New) The method of claim 101, wherein the therapeutic moiety is cytotoxic agent or radioactive element.

104. (New) The method of claim 100, wherein the therapeutic moiety is an antimetabolite, an alkylating agent, an anthracycline, an antibiotic, an auristatin, a DNA-repair enzyme inhibitor, a farnesyl transferase inhibitor, or a topoisomerase inhibitor.

105. (New) The method of claim 101, wherein the therapeutic moiety is an antimetabolite, an alkylating agent, an anthracycline, an antibiotic, an auristatin, a DNA-repair enzyme inhibitor, a farnesyl transferase inhibitor, or a topoisomerase inhibitor.

106. (New) The method of claim 84, 85 or 87, wherein the administration of siplizumab or an antigen-binding fragment thereof prolongs the survival of the human.

107. (New) The method of claim 83, 86 or 88, wherein the survival of the human is prolonged.

108. (New) The method of claim 83, 84, 85, 86, 87 or 88, wherein the human has not previously been treated for the adult T-cell leukemia.

109. (New) The method of claim 84, 85 or 87, wherein siplizumab or an antigen-binding fragment thereof is administered parenterally or intravenously.

110. (New) The method of claim 83, 86 or 88, wherein the antibody is administered parenterally or intravenously.

111. (New) The method of claim 84, 85 or 87, wherein siplizumab or an antigen-binding fragment thereof is administered weekly.

112. (New) The method of claim 84, 85 or 87, wherein siplizumab or an antigen-binding fragment thereof is administered to the human at a dose of 0.01 mg/kg to 10 mg/kg.

113. (New) The method of claim 83, 86 or 88, wherein the effective amount is a dose of 0.1 mg/kg/week to 10 mg/kg/week for 6 weeks, 8 weeks, 12 weeks, 6 months, 8 months, 10 months or 12 months.

114. (New) The method of claim 83, 86 or 88, wherein the antibody is not LO-CD2a (ATCC Accession No. HB 11423).